

uncertain, however, whether or not even this usefulness is more for the needs of the staff and administrators of these wards than for the needs of the patients in them. The drug does not seem to affect ideation or basic psychopathological processes.

The twenty-three clinical papers deal with the effect of reserpine on the clinical course of psychoses, neuroses, headache, narcotics withdrawal, brain trauma, epilepsy, and skin disorders. All report favorable results but controls are usually poor, follow-up frequently absent, and conclusions often unwarranted from the data. The enthusiastic reports of the curative effects of reserpine on patients with psychiatric disorders are reminiscent of the unfulfilled claims made in the past for the efficacy of insulin coma, electroshock, lobotomy, hormone and carbon dioxide therapies. However, both the low toxicity and the calming effect of the drug are confirmed by all the studies.

This publication is recommended as being informative for those readers who want to find out about reserpine, or who are interested in neuropharmacology, or who are as yet unaware of the unscientific standards of clinical research frequently reported in modern psychiatry, particularly by those who advocate "pills for the mind."

LOUIS B. FIERMAN

NEUROPHARMACOLOGY. TRANSACTIONS OF THE FIRST CONFERENCE, May 26-28, 1954. Harold A. Abramson, Ed. New York, Josiah Macy, Jr. Foundation, 1955. 210 pp. \$4.25.

This publication is a presentation of the Transactions of the First Conference on Neuropharmacology held in May 1954. The importance of this field is emphasized in the stimulating introductory statement of Ambassador William Borberg, delegate of Denmark to the United Nations, who discussed the significance of the study of the neurological and psychological effects of drugs in relation to the social setting. The participants then reviewed certain specialized aspects of the total field. The usual verbatim accounts typical of the Josiah Macy Conference Series were reported with all the benefits and shortcomings of this method of publication.

The first two papers may be considered basic in that they present first, considerations of the effects of pharmacological agents on the over-all circulation and metabolism of the brain by Seymour S. Kety, and second, the functional organization of the brain by Ernest A. Scharrer. Kety's extensive material is concerned with the methods of determining the over-all circulation and metabolism, and the effects of many drugs, hormones, and other procedures such as ganglionic block and inhalation of oxygen and carbon dioxide. The fruitful discussion provided a thorough and valuable critique of the limitations of the methods with indications for further investigation. A very complete reference list is appended in this section.

The material on functional organization of the brain was particularly concerned with certain cytological aspects, especially the distribution of enzymes ("chemoarchitectonics"). The hope was raised that the selective action of some drugs may be correlated with the localization of certain

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enzymes. Also, the problems of local circulation and capillary distribution were considered in relation to vulnerability of certain areas, i.e., Ammon's horn.

The remaining three papers presented material concerned directly with pharmacological studies. These were: studies of the electrical activity of the brain in relation to anesthesia by Mary A. B. Brazier, the ascending reticular system and anesthesia by Horace W. Magoun, and observations on new central nervous system convulsants by Carl C. Pfeiffer. The first two papers reviewed mainly the electrical aspects of the effects of anesthesia. Brazier presented in detail the various electroencephalographic changes that occur under anesthesia especially with barbiturates, showed some of the differences between surface and depth recording, and the electrical responses to sensory stimulation, especially photic. Magoun emphasized the ascending reticular formation in the brain stem concerned with the electroencephalographic arousal reaction as the pathway involved in general anesthesia rather than the classical somatic afferent sensory pathways. The "reticular route" to the cortex is regarded as quite susceptible to anesthetic agents because of its multisynaptic organization.

The report on new CNS convulsants by Pfeiffer included a presentation of two interesting new drugs. One, acridone, is fluorescent and its distribution in the nervous system may be studied after administration. The other, one of a group of convulsant hydrazides has a well-defined action, being convulsant by virtue of inducing a pyridoxine deficiency. It is hoped that further studies of these drugs might develop information concerning the metabolic basis of neuronal excitability. In the discussion of this material there was brief reference to the effects of hormones on central nervous system function and the psychological effects of lysergic acid or LSD 25. It should be noted that table 16 is presented quite out of place between pages 80 and 81, belonging rather between pages 182 and 183.

This conference, therefore, primarily considered certain introductory, basic aspects in the field of neuropharmacology and only two special drug effects, the anesthetic and the convulsant. This field is becoming increasingly wider and more significant, and it is hoped that in further conferences other problems will be considered, especially those concerning anti-convulsants, drugs involved in neuromuscular transmission, drugs affecting the autonomic nervous system, and finally the drugs and other substances such as hormones which produce definite psychological effects such as the adrenal steroids, mescaline, LSD 25, the Rauwolfia substances, and chlorpromazine. This present volume is recommended as an introduction and initial critique and it is hoped that the future conferences will uphold this first standard.

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ADVANCES IN VIRUS RESEARCH. Vol. II. K. M. Smith and M. A. Lauffer, Eds. New York, Academic Press, 1954. 313 pp. \$7.00.

For a single reviewer to attempt a critical evaluation of all of the papers in this volume would indeed be presumptuous, for each is written by an expert who is thoroughly familiar with his subject. Assuming that the